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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/590,681

08/25/2006

Dieter Grafl

60680-2117

2915

68459 7590 06/07/2010  
MARSHALL & MELHORN, LLC  
FOUR SEAGATE  
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TOLEDO, OH 43804

EXAMINER

SIDDIQUEE, MUHAMMAD S

ART UNIT

PAPER NUMBER

1795

MAIL DATE

DELIVERY MODE

06/07/2010

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/590,681	<b>Applicant(s)</b> GRAFL ET AL.	
	<b>Examiner</b> MUHAMMAD SIDDIQUEE	<b>Art Unit</b> 1795	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 4/30/2010.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 12-30 is/are pending in the application.
- 4a) Of the above claim(s) 27-30 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 12-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 August 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>10/26/2007</u> . | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

***Election/Restrictions***

1. Applicant's election without traverse of Group I in the reply filed on 4/1/2010 is acknowledged.

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 12-21 are rejected under 35 U.S.C. 102(b) as being anticipated by Kaneko et al (US 6,383,678).

Regarding claims 12-15, Kaneko discloses a separator (20, 120, 220) (contact plate) for fuel cells comprising a projections (coherent active area) on the contact plate which contacts fuel cell electrodes. The active area includes a contact surface and recesses which form a channel structure. The separator is made of stainless steel (passivating, corrosion- resistant metal) and includes a coating (23, 123, (223+228)) of an electrically conductive, corrosion resistant material comprising carbon and resin (thermoplastic or thermoset) [Abstract; Fig. 1-2, 7, 10; column 4, lines 1-39, column 6, lines 1-37, column 8, lines 33-55].

Regarding claims 16-18, Kaneko teaches that the contact plate further includes an edge region which is outside of the active area [Fig. 2, 9].

Regarding claim 19, Kaneko teaches that the carbon can be in the form of graphite [column 5, lines 9-16, column 1, lines 14-24].

Regarding claims 20-21, Kaneko teaches that the conductive coating membrane comprises carbon, a precious metal, or an alloy of nickel and chromium [Abstract].

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

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consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 22-23 rejected under 35 U.S.C. 103(a) as being unpatentable over Kaneko et al (US 6,383,678) as applied in claim 12 and further in view of Tanaka et al (US 2004/0185322 A1).

Regarding claims 22-23, Kaneko remains silent about the thickness of the separator. However, it is well known that metal separators are made having a thickness ranging from 0.05mm to 1.0mm as taught by Tanaka [paragraph 0028]. Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to utilize the teachings of separator thickness as taught by Tanaka in the fuel cell of Kaneko in order to have sufficient strength to form channels and limit the overall height and weight of the fuel cell.

8. Claims 24-26 rejected under 35 U.S.C. 103(a) as being unpatentable over Kaneko et al (US 6,383,678) as applied in claim 12 and further in view of Ganski et al (US 2003/0194597 A1).

Regarding claims 24-26, Kaneko remains silent about using the contact plate as bipolar plate. However, Ganski teaches that contact plates are used as bipolar plates and end plates [paragraph 0008, claim 27, 37]. Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to utilize the teachings of using same contact plates for bipolar plates and end plates as taught by

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Ganski in the fuel cell of Kaneko in order to use same parts for different functions and thereby efficient manufacturing process.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MUHAMMAD SIDDIQUEE whose telephone number is (571) 270-3719. The examiner can normally be reached on Monday-Thursday, 7:30 am to 4:00 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached on 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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Examiner, Art Unit 1795

/Dah-Wei D. Yuan/  
Supervisory Patent Examiner, Art Unit 1795